Rockville Summit II

Education and School Capacity Working Group Report

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Table of Contents

In	troduction	2
Sι	ummary of Recommendations	2
Recommendations		3
	Rockville influence on education	3
	School capacity	4
	Linking with City constituencies	5
	Improving the school learning environment	6
	Preschool activities	7
	Higher education	7
	Sustainability and safety	7
Major Issues and Topics Discussed		8
	Rockville influence on education	8
	School capacity	8
	Linking with City constituencies	. 11
	Improving the school learning environment	. 12
	Preschool activities	. 13
	Higher education	. 14
	Sustainability and safety	. 15
C	onclusions	. 16
W	Orking Group Participants	. 16
V	Meeting Schedule and Means of Communication1	
Α	ppendix 1	. 18
Α	ppendix 2	. 19
Α	opendix 3	. 20

Introduction

Our group consists of professionals in the field of education, parents, and community activists whose experience and background have brought valuable perspectives to our conversations about the educational system that serves Rockville. We have had a number of spirited and informed discussions on a broad range of issues that inform current education policies. We have examined how these policies impact schools in Rockville and what their implications are for children's education, workforce development, and quality of life. In our effort to understand the current policy environment we have had support from city staff, whose responsiveness and assistance are greatly appreciated.

In our report, we have outlined specific recommendations which take into account Rockville's strengths while also acknowledging the City's limitations with respect to the structure and governance of the school system. We have considered ways in which Rockville can influence change, we have explored the potential of school and community partnerships, and we have studied issues related to school capacity, population with special needs, higher education, safety, and sustainability.

The prescient wisdom in the aphorism by Derek Bok, an American educator and former president of Harvard University, "If you think education is expensive, try ignorance." exposes a paradox that is all too common in budget decisions. We recognize that failure to educate our youth leads to economic problems and social ills, yet education funding is consistently among the first to be cut. While the City of Rockville does not set the school budget and has limited power in dictating priorities, it can play a role as advocate and agent for its students of all ages. This advocacy may not be very costly in terms of budget, but will require an effort and time commitment from City leaders. In our specific recommendations, outlined below, we invite the City to seek ways to engage the broader community in creating programs that enhance and enrich the educational experience for students of all ages.

Summary of Recommendations

We are concerned that the current policy environment is not serving Rockville's needs optimally both for today and in the future. Our recommendations are aimed at reorienting efforts to serve Rockville's current and future needs. Education is a keystone for a thriving and economically vital community. With our recommendations, we aim to encourage the City of Rockville to adopt a multifaceted and comprehensive approach to education.

We understand that the city has no specific authority or taxing power to build, operate or regulate schools in the city; rather, the city has a general responsibility to represent its residents and protect their interests in dealings with county, state, and federal agencies that have this authority. So our first set of recommendations is aimed at improving the City's advocacy. The economic and social health of the city depends on the ability of its leaders to obtain the best possible educational services for residents of all ages. To this effect, we recommend that the City of Rockville build and maintain positive relationship with other levels of government in order to advocate effectively on behalf of Rockville residents for educational services and facilities that meet the highest standards.

Other recommendations that follow deal with more specific areas such as enhancing science, technology, engineering, and math education; addressing constituencies such as local business, minority

communities, and Pre-Kindergarten education; improving higher education; and promoting sustainability and safety.

Recommendations

All recommendations that have been discussed at our meetings or have been submitted via email have been included in this section. We group them as a) Rockville influence on education, b) School capacity recommendations, c) Linking with city constituencies, d) Improving the school learning environment, e) Preschool activities, f) Higher education, and g) Sustainability and safety. In the following section, we provide supporting text that describes the relevant issues and concerns.

Rockville influence on education

- Establish a Rockville Education Forum, open to all Rockville residents. The Education Forum will bring together actors in the education sector who can contribute to the quality and capacity of education in Rockville. These parties include:
 - Day care centers
 - Child Care Centers
 - After school programs
 - Pre-K Schools (Public and Private)
 - Private Schools
 - Public Schools
 - Colleges and universities
 - Tutorial service providers
 - Special education and ESOL providers
 - Higher Education Institutions
 - Homeschoolers
 - o PTAs
 - Student councils
 - Mentoring and outreach programs
 - Volunteers in the schools
 - School resource officers
 - Businesses and non-profits with an interest in education

These actors tend to function in isolation and there does not seem to be a mechanism to involve all these actors in shaping the future of education in Rockville. Issues should include the impact on the education system of demographic changes, special education, and workforce trends.

- The Education Forum will:
 - Bring the various actors together identifying challenges, opportunities, and solutions through public policy reforms;
 - o Create opportunities for networking, partnerships and to exchange experiences;
 - Advocate for specific goals in attaining quality of education in Rockville and beyond;
 - Establish a website, possibly as part of the City of Rockville website;
 - Establish a dialogue with and advocate an education agenda to MCPS and other County and State officials; and,
 - o Inform the public about the state of education in Rockville.

- The Forum's actions should include:
 - Once a year conference and education fair
 - o Quarterly publications
 - Web Portal
 - Other tools as necessary
- Establish a comprehensive "Rockville Education" web portal for coordinating information and developing educational opportunities for students, teachers, schools, and any other party. The portal should facilitate the development of collaborative programs, sharing of facilities, as well as generating grant opportunities. The web portal will list a) providers by category, b) meeting agendas and meeting minutes, and c) collaborative initiatives. Through the portal, opportunities from the county, state, and federal agencies can be broadcast. Longer term issues should be addressed as they arise.
- Form a permanent City committee for education like the many other standing city committees.
 This committee should monitor the status of education in the city and advocate for changes that will serve the City's interests. Members of the committee should attend relevant county committees, visit city schools, and have good working relationships with MCPS. The committee should report to the Mayor and Council and the public at least once a year. The members of the committee should be chosen for their knowledge, competence, and independence.
- Encourage and support members of the community to get involved in the schools and advocate for Rockville's students:
 - Individuals including seniors and members of the business community volunteering, tutoring; training
 - Police Department Serve as school resource officers (SROs) to keep safety- focus
 - Rockville Chamber of Commerce Invest in community partnerships connect schools with the business community in both formal and informal ways
 - Hispanic Chamber of Commerce MC could be effective in reaching the Hispanic community – role models for Hispanic students
 - Office of Outreach of MCPS connect Rockville neighborhood services with the Office of Outreach to serve as facilitators with the parents in their respective schools and neighborhoods, and coordinate with PTAs.
 - Private Schools older students can serve as volunteers, tutors, or interpreters; also develop partnerships
 - Higher Ed partnerships with primary and secondary schools resources for teachers

School capacity

Rockville should:

Address the urgent and pressing need for additional school capacity. A coordinated advocacy
effort is required at the County and State levels to ensure adequate and appropriate school
facilities for all in Rockville. In particular, the City can continue its advocacy for a new
elementary school at the site of the old Hungerford Park School on West Edmonston to address
overcapacity issues in the entire Richard Montgomery (RM) cluster soonest and to keep

modernizations at Maryvale and Twinbrook Elementary Schools on track for 2018 and 2012, respectively. An addition has been programmed for Julius West Middle School; planning is slated to begin in Fiscal Year 2014 with the addition to open in August 2016. Also, planning is underway to examine remedies for overcrowding at Meadow Hall and Barnsley Elementary Schools. The latter serves as a Gifted and Talented Center for 4th and 5th Graders from Rockville. The notion of a second middle school., perhaps even a shared school (with cross articulation), for the Rockville and Richard Montgomery clusters also needs to be considered. Earle B. Wood is approaching critical overcapacity levels in the next five years, while Julius West will be full, even with the planned addition, and both clusters currently have a single middle school, which leaves little capacity flexibility.

- Participate actively in feasibility study/architectural/facility design committees from their inception. Participation in these committees can help to ensure that County and MCPS planning are in harmony with City zoning and Rockville priorities. Near-term opportunities may include feasibility planning for capacity solutions at Meadow Hall and Barnsley Elementary School and the modernization of Maryvale Elementary School, which all received planning funds in Fiscal year 2013 and in the Facility Design Committee for the planned addition at Julius West Middle School, which is programmed for planning funds in Fiscal Year 2014.
- Track and facilitate the process of relocating the Childhood Resource Center in order to ensure that no delays in its relocation affect the timely construction of the new Hungerford Park school.
- Modify its Adequate Public Facilities Ordinance (APFO) to harmonize with the County, especially with regard to school facilities.

Linking with City constituencies

- Strengthen the partnership between the City of Rockville and the PTAs. Seek to engage all parents or all ethnic and minority groups, not only PTA leadership, as advocates for the educational needs of their children. Learn from successful advocacy efforts of PTAs at the national, state, and county level. Develop strategies and build alliances that will help improve the educational experience for all students in the City of Rockville.
- Link with neighborhood associations to promote awareness of education issues, coordinate advocacy efforts, and promote a sense of community with the local schools.
- Work with the school system to distribute brochures that advertise school programs and services in public places such as libraries and cultural centers as well as the offices of pediatricians.
- Help the school system to build communities among individuals who speak different languages.
 The City is a center of language diversity.
- Support partnerships that lead to a seamless transition from high school to higher education
 and then to businesses in order to create the workforce of the future. The structure is already
 underway with existing programs among MCPS, Montgomery College, and the Universities at
 Shady Grove.

- Work with the school system to establish training centers/opportunities for prospective afterschool teachers (to be run by local businesses together with educational institutions)
- Give preference to the development of MPDUs (moderately priced dwelling units) and workforce housing to allow more teachers working in schools with Rockville children to live in the community they serve.

Improving the school learning environment

- Facilitate additional internship availability. There currently are some internship programs for high school students, including programs by the Montgomery County Business Roundtable for Education (MCBRE) and the superintendent's internship program, but these are inadequate.
 Therefore we recommend to:
 - Introduce Professional Learning Hours (PLH) as an alternative requirement for high school graduation (the students could decide whether they will do 100% SSL hours or 50% SSL, 50% PLH).
 - Advocate for REDI and local businesses to spearhead "Business and Innovation Idea"
 Challenge Rockville-sponsored annual contest for high school students, with training provided to the students prior to the contest by local SBA members and volunteer business professionals.
 - o Inform teachers of the current needs of local business and industry. The City should foster opportunities for the businesses to provide in-school enrichment for students and professional training for teachers. The City should work with MCPS and the County on any needed regulations or guidelines for facilitating this effort. Communicate these efforts to the business community, perhaps through the Rockville Education Forum.
 - Set up employment fairs/opportunities for college students to be employed part-time at after-school programs. List opportunities in the Education web portal. Hiring college students will help the students to offset the cost of their education and gain valuable experience, while ensuring that the younger children get adequate after-school care.
- Improve the connection between colleges and universities, teachers, and other education providers for the purpose of identifying and addressing City and County workforce development needs.
- As part of the Educational forum we recommend in the above section, we recommend that the City take the following steps to improve information and awareness of educational initiatives.
 - Establish a list of enrichment programs and after-school providers; create a website for the community to look them up by subject (may be, partner with Activity Rocket for this);
 - Work to ensure that this information is available to the diversity of Rockville's student population through outreach activities;
 - List all math and science related activities for students on Rockville Science Consortium website;
 - Establish monthly "Teen Math and Science Café" for the students who want to share their original math or science work, or provide an interesting talk in STEM field. Tape the talk and place it on Rockville Science Center website;

- Make STEM internships more accessible for high school students. List the opportunities on the Rockville Science Consortium website;
- Establish educational events/festivals/contents that include local businesses and educational organizations. (Rockville Science Day is a wonderful example of such collaboration). Establish training centers/opportunities for prospective STEM afterschool teachers (to be run by local businesses together with educational institutions).
- Establish a better connection between universities and education providers. Develop collaborative after-school STEM programs for elementary and middle schools.

Preschool activities

- Regarding the limited public school options for childcare and pre-school offerings, the City of Rockville should partner with government and private sector employers to develop child care programs. This effort includes meeting the needs of working parents and:
 - Expanding Pre-Kindergarten services to families who are not eligible for state and
 Federal programs, but can't afford to send their children to private Pre-K programs or child care services.
 - Paying more attention to children from recently immigrated families who are English language Learners. Early investment on this socio-economic group can help student achievement and school performance at later stages.
 - o Instituting half-day Pre-K classes for all four year old children who qualify for FARMs, special education or come from non-English speaking homes.
- Improve county wide distribution of brochures about Pre-K classes, special education and ESOL services in public places such as libraries, community and cultural centers as well as the offices of pediatricians, low income housing, and day care programs. Utilize Rockville's neighborhood outreach services to facilitate information dissemination.
- Create on the Rockville Education forum a section "Children from birth to 5" listing all these services; make the section easy to find for the parents; implement page translation mode to translate the information into the languages spoken in Rockville.

Higher education

- Work with County, State, other government agencies, non-profits, and other potential sponsors
 to locate in Montgomery County an independent research university that offers bachelors and
 post-graduate degrees.
- Work to ensure higher education and continuing education opportunities for Rockville students of all ages, including seniors.

Sustainability and safety

• We recommend that Rockville advocate for system thinking and sustainability education and efforts. In particular, we recommend to:

- Introduce system thinking in early grades.
- Develop system thinking units to demonstrate the relationships within complex systems, such as community safety issues, school government, etc and to highlight the need for sustainability.
- Develop sustainability units and activities for K-12 schools, to include energy spending, environmental issues and recycling.
- Include local business leaders and professional organization in the discussion about the system thinking and sustainability curriculum development, via the Rockville Education Forum.
- Offer professional development to teachers in the areas of system thinking and sustainability.
- Facilitate ties between schools and sustainability programs. These include recycling programs, solar energy programs, green architecture and construction programs, and others supported by Montgomery County Community College.
- Continue to work closely with the community to engender a nurturing and secure school environment through positive role modeling and partnerships on anti-bullying and other safety (cybersafety, drunk driving, drug, etc.) programs.
- Allocate as needed Rockville Police as School Resource Officers at schools to build relationships and raise awareness to help prevent incidents and to support anti-bullying and anti-gang policies.

Major Issues and Topics Discussed

Rockville influence on education

The city is empowered with taxing authority over real property and can control land use by zoning and other regulations. The City cannot choose its residents. City actions should avoid interference with the County, State, and Federal Government, who are responsible for the delivery of services to City citizens. With this limited power, Rockville has established a representative and effective local government.

State law prevents the City from collecting or expending money for school facilities. But this restriction applies only to formal relationships with other government agencies. There are other informal and indirect ways that Rockville can, and should, work to improve its education system. To ensure that the citizens of the city are receiving a fair share of resources available in the county, the City should maintain a constant liaison with responsible authorities at the local, county, state, and national levels and press for meeting the needs in the city for workforce development and satisfying working families.

School capacity

From 1990-2010, Rockville's population grew by 36.5%, outpacing growth in Montgomery County and the Washington metropolitan area (Fuller Report). The under 18 years of age segment of the population grew at the same rate as the overall population of Rockville. Further, the under 5 years segment is

larger than the 5-9 years, which is larger than the 10-14 years (Census Results). Thus, the school-age population will increase even more than the overall population over the next several years.

Montgomery County Public Schools (MCPS), the 16th largest school district in the nation, have experienced continued record growth. Between 2007 and 2011, enrollment increased by more than 9,000 students; projections for the 2017-2018 school year indicate an increase of approximately 9,000 more students (MCPS CIP). MCPS' Director of the Division of Long-Range Planning made a presentation about enrollment and the future capital improvements program at the Montgomery County Board of Education meeting on October 9, 2013. According to the meeting summary sent by MCPS, the Board learned that "Enrollment in MCPS is around 149,000 students, a one-year increase of 2,500 students and an increase of more than 11,000 students since 2007. Nearly all of the enrollment increase since 2007 has occurred at elementary schools, where enrollment has grown by 10,000 students since 2007. Numerous capital projects in the approved Fiscal Year (FY) 2013–2018 Capital Improvements Program (CIP) add substantial amounts of elementary school capacity by 2017, but more will be needed. In addition, in many parts of the county, significant increases in middle and high school enrollments are beginning to occur, and more capacity at several secondary schools will be needed."

This record growth has resulted in critical overcrowding that is increasing. In the 2010-2011 school year, MCPS had 350 relocatable classrooms (i.e. temporary buildings) primarily to accommodate overutilization of buildings, with an increase to 494 in the 2011-2012 school year and 533 in 2012-2013 (MCPS Master Plan FY13). While the vast majority of these relocatable classrooms are located at elementary schools, capacity deficits will spread to middle and high schools (MCPS CIP) as long-term enrollment continues to rise.

Of the nine schools with more than 50% of their enrollment from the city of Rockville, seven are currently overcapacity and utilizing relocatable classrooms, and are projected to still be over-capacity by the 2015-16 school year despite the capital improvements program (8/21 presentation).

Private schools teach only about 15 to 20% of the city's students. There was some reduction in private school enrollment due to the recession. Most private schooling is in the lower grades. We do not think that private schools will play a major role in reducing overcrowding in the public schools and are not motivated to address City issues. We reject any notion of explicitly depending on private schools to help with public school overcrowding.

Funding for capital improvement comes from a complex mix of local funding sources and state aid. Of the \$184.5 million requested by the Board of Education for FY 2013, only \$43.1 million was approved for state aid and \$40 million by the County Council. If these funding levels continue, planned projects will be delayed or canceled (MCPS CIP), including those in Rockville.

A decade ago, the issue of overcrowding in schools was addressed by the City of Rockville's Comprehensive Master Plan of 2002. Recommendations included the need to "promote adequate public school facilities to sustain high quality educational programs at reasonable cost." Yet schools are still overcrowded, and are facing the likelihood of acceleration of this problem.

This growing concern was addressed in stronger language in Rockville's 2010 Municipal Growth Element of the Master Plan, stating that "MCPS must make addressing capacity issues in Rockville a very high priority.... Rockville is extremely concerned that the highly over-capacity conditions in these schools will remain for many years to come."

The 2010 Municipal Growth Element of the Master Plan noted that the challenge of addressing school capacity appears to be cost, budgeting and scheduling rather than the availability of property. The Plan also reported that MCPS Long-Range Planning staff informed the City that the large majority of the growth in student enrollment in recent years has come from existing homes, rather than new development, due to broad demographic changes.

Recommendations from the 2010 Municipal Growth Element of the Master Plan included specific schools - open a new elementary school in Rockville at the site of the former Hungerford Park Elementary School or at the reserved elementary school site in King Farm; modernize and expand Twinbrook ES, Ritchie Park ES and Beall ES; and address overcrowding at Wooton HS, Meadow Hall ES and Maryvale ES. The Plan also stressed the need for immediate implementation of the cluster-wide strategy for the Richard Montgomery Cluster ESs and Julius West MS, noting that a delay would result in children in this cluster attending ESs at or above 150% capacity for many years, and Julius West MS quickly arriving at a very difficult situation.

The Montgomery County Board of Education, recognizing that all of the elementary schools in the Richard Montgomery Cluster are significantly overcapacity proposed the construction of a new elementary school on the site of the former Hungerford Park School on West Edmonston, where the Children's Resource Center is currently located. Rockville City staff and elected officials participated in the feasibility study for the new school. City staff attended feasibility study meetings for the proposed addition at Julius West as well. In addition, City officials testified before both the Board of Education and the County Council in support of the new elementary school and other school capacity additions that would have a positive impact on Rockville. The Board of Education's plan was for the new school was to open in August 2015 in order to alleviate the over capacity situation soonest. However, the new elementary school for the RM cluster was delayed by two years due to stated budget concerns. It was the only capital project for a new school that was delayed. We also note that there is a shortage of school construction funding at the County level generally but want to ensure that the City's needs are addressed in as timely and equitable a fashion as possible.

A related problem is that the new Hungerford Park school may not be built within 5 years, by 2017, because of the need to move the childhood resource center (CRC). The city should carefully track the move of the CRC to makes sure it is funded and the move accomplished.

One effort that may help facilitate school construction is participation in MCPS' facility design and schematic design committees for capital projects such as additions and new schools in the City. These committees influence school location, facilities, capacity, and other aspects of school facility siting and construction. Participation also allows for smoother planning as MCPS and County planners still need to be mindful of Rockville's zoning and other ordinances. For an example of planning, see the ideas for Edison High School at this website

(http://www.montgomeryschoolsmd.org/departments/construction/projects/Docs/EHS%20SD%20MTG 2%209FEB2012%20FINAL%20MCPS.pdf).

Currently, the Rockville Adequate Public Facilities Ordinance (APFO) is different from that of the County. For example, the City puts a moratorium on new residential construction if a school is projected to have an enrollment of 110% of capacity within two years (the APFO capacity trigger). The comparable County values are 120% and six years. In addition, the City moratorium applies to a school drawing area, while the County one applies to the entire cluster.

One of the Rockville APFO's expected benefits was that it was going to reduce or the growth of school overcrowding by stopping the construction of new residences. It has effectively reduced the construction of new residences since 2005, but it certainly hasn't had much effect on school overcrowding which gallops along unrestrained. Much of the growth in students comes from turnover in existing neighborhoods. There is growing discontent from the business community as a result.

One thing Rockville can do is to harmonize its APFO with the similar law for the county. Our reasoning for harmonizing the City and County APFOs is as follows. If the City moratorium were stricter than the County's, then a moratorium would rapidly occur and be in effect. This may hurt the City, as the County may choose to fund other locations where a moratorium can be prevented. If the City moratorium were laxer than the County's, then the County may not invest in schools in Rockville, as there would be less risk of invoking a moratorium. Therefore, making the City moratorium requirements the same as those at the County level would minimize the possible disadvantage to the City resulting from County-level capital decisions.

Linking with City constituencies

The diverse population of students affects the education environment. The Department of Public Information and Web Services for Montgomery County Public Schools (MCPS) has published the following statistics; of the projected number of students, (149,000), there are students from 164 countries speaking 184 languages. Of these, 26 percent are Hispanic and 14.3 percent are Asian American. In terms of overall services, 13 percent of all students participate in English for Speakers of Other Languages (ESOL) classes. In forecasting enrollment, the Division of Long-Range Planning, (March 31, 2011) cites the increase of 39 percent in the school system since 1990 and further states that, "one of the most important characteristics of MCPS enrollments change since 1990 has to do with the race and ethnic composition of enrollment". Non-Hispanic white enrollment has decreased by 10, 711 and the entire enrollment increase since 1990 is attributed to increases in African American students (+15,992), Asian American students (+10,382) and the largest group, Hispanic students (+24,495).

Aside from the changes stated above in the race and ethnic elements of student enrollment, there is an increase in the number of students participating the Free and Reduced-Price Meals (FARMs) program to a total of 30.7 percent of the total enrollment, up 15.2 percent from 1990.

Enrollment in MCPS has increased 39 percent since 1990. Students identified as Hispanic comprise 26% of this increase, with African American and Asian American students forming the remaining 17. 1 percent. Approximately 13 percent of all students currently in MCPS are enrolled in ESOL classes. Furthermore, there has been an increase of 15.2 percent in the number of students enrolled in the FARMs program since 1990 bringing the total to 30 percent of the enrollment in MCPS in need of this service.

The school-age population is more diverse than the total county population due to the significantly higher birth rates among Hispanic women with a fertility rate 109.1 births per 1000 women of childbearing age as compared with 70.9 births for non-Hispanic women. The birth rate for most populations is often a reflection of cultural norms, so while the birthrate for Hispanic women now living in Montgomery County is higher than that of other ethnic populations currently living in the county, the rate of immigration into the county may serve to support this birthrate for some time to come.

The total projected enrollment for MCPS is for an increase from 144,064 students in 2010 to 154,684 by 2016. (Recommendations on the City of Rockville's Adequate Public Facilities Ordinance, Review Committee, November 2011, Attachment #2, p. E-13) The most significant growth is expected to be in Grades K-5 where enrollment is projected to increase from 64,355 in 2010 to 70,000 by year 2016.

Here are a few of the many services which have been created in response to the cultural and linguistic diversities now present in MCPS; "Study Circles" where parents come together to discuss classroom expectations, translators proficient in many languages are made available in situations where children are being evaluated such as the "Child Find" and "Montgomery County Infants and Toddlers Programs". Also, the MCPS web site may be read in several languages as preferred by parents and students and the curriculum for all elementary grades is also printed in several languages. MCPS has increased ESOL programs to meet the needs of non-English speaking students, but faces yearly operating budget challenges. Rockville can advocate to ensure that programs that support its diverse population are funded.

MCPS has provided resources to inform and support diverse communities, but it is hard for new immigrants or busy parents to find out about them. We visited three of the six schools in the Richard Montgomery Cluster and found materials, printouts, booklets etc. on display in only one of these three. The place in those schools where these pamphlets were kept was inconspicuous, out of the way and incomplete in materials. Upon visiting the Carver Educations Center (MCPS headquarters on Hungerford Avenue), we collected many descriptive materials and had become aware of what is available, however, these were not seen in the foyers or main offices of the schools I visited. Further, people we questioned at Carver and at the schools did not know how parents of very young children (birth to age five) would find out about programs for this age group unless those parents already had one child enrolled in MCPS. Some suggested, "well, it must be word of mouth" or maybe the pediatrician's office has brochures that are given out there.

In addition, neighborhoods are a critical link between MCPS and the community at large. Some families are not aware of issues that are discussed at PTA meetings because they do not participate. Outreach through neighborhoods would be an alternative method for encouraging participation by ethnic and minority groups in the education system.

From 1990-2010, the median household income growth for Rockville outpaced gains in Montgomery County. Residents moving into Rockville in recent years had higher incomes than the residents moving out. This trend has implications in general for Rockville's future workforce, and specifically for those working in education. As one of the sectors identified for above-average growth over the 2010-2020 period, the education arena will need more employees. However, many K-12 teachers and college faculty cannot afford to live in Rockville, the community that they're serving.

Improving the school learning environment

An issue with the school system is its inadequate link with the business community and the limited exposure that most students have to business leaders. Such exposure has benefits to all concerned. For the students, having business people give presentations in class, help with school projects, and/or offer internships and other real world business experience for school credit gives valuable role models, real world experience, a possibility for recommendations for future jobs, professional growth. For business

professionals, contact with students offers personal satisfaction and a means to obtain productive employees.

The Professional Learning Hours program will make Rockville more attractive for small businesses, while giving students exposure to the real world work experience, work culture and ethics, helping them with professional networking, recommendations outside of school, and improving motivation to study.

The teacher housing issue was included in the Fuller Report, recommending that Rockville's housing stock be expanded to accommodate a greater proportion of the city's future workforce. This expansion would reduce its dependency on commuters with concomitant reductions in inter-jurisdictional transportation demand. The city would become more attractive for employers seeking locations with easy access to a well-educated workforce and a housing stock with a broad range of sizes, styles and prices. The current shortage of affordable housing in Rockville thus needs to be addressed

Preschool activities

It is well documented that high-quality pre-K programs significantly help prepare children for school which in turn leads to a more educated population with higher-paying jobs, fewer social problems like crime and delinquency, and a strong economic return on the dollars invested in pre-K. Furthermore, quality Head Start programs can have positive effect on children's cognitive and social-emotional outcomes for 3 and 4 year old children.

With the growing diversity and population, one of the challenges the city of Rockville faces is to prepare children of all social and economic background for school. In 2011-12 more than 34 percent of the 11,419 kindergarten students in Montgomery County came from English Language Learners.

The State of Maryland's School Readiness policy firmly believes that the early childhood period of a child's life to be crucial for learning.

The years from birth to age five are the most crucial period of learning in a child's life. This is the "window" in which a child's greatest brain development takes place. In fact, nearly 90% of a child's brain development – in response to the stimulation the child receives – happens by age 5. Early experiences lay the groundwork for a child's lifelong learning and behavior (The State of Maryland's School Readiness Report for 2010-2011).

However, the Pre-K public services coverage of Maryland has a significant gap according to the annual report of the National Institute for Early Education Research. In 2010-2011, for instance, the State of Maryland stood 12th nationwide in terms of access of Pre-K for 4 year old children, with 43.3 percent coverage compared to 75 percent nationwide. Pre-K enrollment for 3 year olds was almost non-existent. The state of Maryland uses Maryland Model for School Readiness (MMSR) to measure the school readiness of Kindergarteners throughout the state and publishes annually the Maryland School Readiness Report.

In 2011-2012 school year 81% of Montgomery County's Kindergartners were school ready compared to the State level school readiness of 83%. Of the total Kindergartners only 13.8% attended full-day Programs while 86.2% attended half-day programs. By contrast more than 29.3% of kindergartners in Maryland attended full-day program and 70.7% attended in half day programs.

This report focuses on Pre-K services coverage for certain income and social groups in the city of Rockville. While state pre-Ks help to increase access for low- and moderate-income families, the NIEER

report and other studies show that participation in pre-K remains highly unequal nevertheless. At age 4, enrollment in pre-K (public and private) is about 65 percent for the lowest 40 percent of families by income and 90 percent for the highest income quintile. At age 3, when state pre-K is rarely provided, enrollment is only about 40 percent for low-income and moderate-income families while it is 80 percent for the top income quintile.

As Maryland does not provide Pre-K program for 3 year olds, it means that about 60 percent of children from low and moderate income families would not be enrolled. By extension this is one of the challenges the city of Rockville would have to address in order to maintain high quality education in public schools and to close achievement gap among children from different socioeconomic groups.

There are 104 Prekindergarten classes and 35 Head Start classes in 64 elementary schools throughout the Montgomery County which offer educational experience to income-eligible children in order to prepare them with the foundational knowledge and skills necessary for school success in kindergarten and beyond. PreK programs are State funded programs with a maximum class size of 23 whereas Head Start programs are federally funded programs with a maximum class size of 20. Both programs serve low income families mainly for children who turn 4 years old by September 1, with some select areas in the county covering 3 year old children as well. In 2011 -2012, there were 2600 spaces available for Pre-K and Head Start for the whole Montgomery County.

Montgomery County's Public School recommended budget for 2012-13 was submitted in December 2011. This raises the question of flexibility of the budget to accommodate demands arising from growing demand from income eligible families.

In discussions held with MCPS Pre-K/Head Start Program staff, our group representative was informed that there is a placement list which means a waiting list for eligible families. While the staff did not provide the total number of eligible Pre-Ks, he was able to substantiate that there were parents who had to wait for a year to get into the program. Appendix 3 provides further details about support for Pre-K programs.

While various programs are set in place to provide Pre-K services to help working families in Montgomery County, anecdotal evidences indicate that there are significant number of working families who fall between the cracks either because they do not meet the income eligibility requirement or because of the waiting time to get into these programs. As a result many mothers are forced to quit their job and stay at home to take care of their kids. In other cases, where the mother could not stop working because she happens to be the sole bread-winner, close relatives and grandparents are brought to live with them to take care of the kids (see appendix 1 for details).

Higher education

Rockville's workforce is largely professional and entrepreneurial. Positions in health care, biotech, legal services, and higher management are the backbone and springboard for Rockville's economic growth (Fuller Report). Rockville's job base is projected to grow by 16-18% percent by 2020. The sectors in which Rockville's business centers have specialized – professional/business services and education/health services – are projected to experience above-average growth over the 2010-2020 period (Fuller Report). Jobs in these sectors generally require some level of post-secondary education.

Local higher education options should support local workforce development. We note the widely available programs for professionals to obtain bachelors and masters degrees. At the top end in terms of quality programs are those at the Universities at Shady Grove (USG) and Johns Hopkins University.

These programs, however, lack a strong emphasis on doctoral programs and research. Most leading urban areas have a number of prestigious four-year research institutions that adapt their programs to the needs of the area. Note the effect that the University of Maryland/ College Park (UMCP) has on economic development in Prince George's county. By contrast, USG brings in established programs developed elsewhere.

A local four year research institution would offer a number of advantages. It would have tenure track faculty who write grants and conduct original research. Their labs would be staffed by graduate assistants. Given the new legal environment where universities share in the patent rights for inventions by faculty, these institutions can spawn new high tech firms, often staffed by former faculty or graduate assistants. Local universities can jump start new companies. And local talent at the post-doctoral level would be more likely to stay in the area rather than migrate.

We understand that developing a new university is an expensive proposition. But there are other ways to develop local independent academic institutions. One way would be for the local John Hopkins campus to become independent. Or another university could establish an independent campus in the area. (By independent, we mean that local academic departments have control over curriculum, faculty hiring, and faculty promotion). It would be feasible for a university to establish a local independent campus because of the local demand for higher education.

Sustainability and safety

Sustainability is a collaborative opportunity for government and educational institutions. Communities are starting to publicize what and where to recycle. These publicity efforts can be standardized into user friendly mobile apps which reduce production expenses and inform travelers. The community benefits (by spending less on energy and landfilling, selling more recyclables and renewable energy credits) and students can apply their knowledge, gain experience, and uncover missing environmental elements which have business potential (eg terracycle.com, http://www.fenugreen.com/#!home/mainPage).

Systems thinking teaches the students to see the big picture, the interconnections and cause-effect relationships around them. Systems thinking can be started with simple books like "When a Butterfly Sneezes: A Guide for Helping Kids Explore Interconnections in Our World Through Favorite Stories". The system thinking habits are essential in various fields — ranging from health, ecology and environment to urban planning and business organizations, but almost nonexistent in the school curriculum.

System thinking units in schools can be started with the School Energy and Recycling Team (SERT) and the younger students could help by categorizing recyclables to post on our local website (http://montgomerycountymd.mygreenmontgomery.org). In Middle and High school, the student government could be told that the county has a forecast utility expense, and if thermostat control is offered to the student government, utility savings can be applied to school activities such as prom night. This initiative will teach the students that the government makes important decisions about meeting the needs of its citizens as well as educating them about the value of sustainability efforts.

Montgomery College has won some grants to facilitate its sustainability efforts (see Appendix 2). Rockville has an opportunity to participate in these efforts and magnify their impact.

Safety is also a concern. The school learning environment suffers when students do not feel safe. Unsafe conditions stem from two sources. First is bullying from other students or anyone else within the system. We encourage MCPS to maintain its efforts to identify bullies, protect those who testify against the bullies, provide meaningful sanctions against bullying behavior, and take strong action against repeat bullies. In addition, we support efforts by the school system to eliminate guns and weapons from schools. Anti-gang efforts also are essential to promote a school environment where learning is the highest priority.

The second source of an unsafe school environment is external. As dramatically demonstrated by the events of fall 2002, when a sniper targeted school students, external attacks on schools can cause anxiety in students, teachers, parents, and administrators. The neighborhoods near schools should be kept free of any threat to the safety of students in school or of students in transit to and from school. For example, facilities near Meadow Hall Elementary School until recently included Health and Human Services Offices, Adult Addiction Services, and Integrated Mental Health and Co-Occurring Services. The proximity of these offices to the school have caused concern among parents. While we agree that such facilities deliver needed services to clients, we also think that a reassuring police presence would be helpful in promoting a safe environment.

Conclusions

We think that Rockville's future relies on the capability of its students, and that these students are worth some investment. In our report, we outline ways that the City can develop its advocacy on behalf of its students, address the school capacity issue, improve schools through linking with various constituencies, assist with Pre-Kindergarten programs, help address needs in higher education, and participate in sustainability and safety initiatives. Our suggestions address various issues that we identified but are only the beginning of an ongoing effort to help Rockville achieve its potential.

Working Group Participants

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Mary Robinson

Meeting Schedule and Means of Communication

We met biweekly on Tuesday evenings for 2 hours each meeting. Our meeting dates were:

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Tuesday, June 26, 7-9 p.m. Tuesday, July 10, 7-9 p.m. Tuesday, July 24, 7-9 p.m. Tuesday, Aug. 14, 7-9 p.m. Tuesday, Aug. 28, 7-9 p.m. Tuesday, Sept. 11, 7-9 p.m. Tuesday, Sept. 25, 7-9 p.m. Tuesday, Oct. 2, 7-9 p.m. Tuesday, Oct. 9, 7-9 p.m. Tuesday, Oct. 9, 7-9 p.m.
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In addition, we regularly exchanged information via email. Email was also used to coordinate schedules and meetings. Some of us met outside the scheduled committee meetings. And some communicated by telephone.

Appendix 1

Interviews with Parents Regarding Eligibility for MC Pre-K and Head Start Programs

One of the committee members took the initiative to see the extent of the problem and interviewed mothers with such experience. Of the 18 mothers who were interviewed, five said they had to quit their jobs to take care of the children, and one had to bring her grandmother from her native country to help her take care two of her kids. Many of them could not qualify because their income was slightly higher than the eligible income level but could not afford to send their children to send them to private Pre-Ks.

Case1. A. A.

Because the gross income of her and her husband was slightly above the eligible income level for their family size they could not send their child to Pre-K program. A.A had to stay at home to take care of their daughter. The daughter was 3 years and 10 months during the interview and she has never been to a Pre-K program. Since she does not meet the age requirement the mother will continue to stay at home until the next school year by which time the child will be 4 years and 10 months, which means she will not be eligible to start Kindergarten. So by the time the child is accepted in Kindergarten she will be almost six years (5 years and 10 months) without any Pre-k experience.

Case 2. M

M has the same problem as A.A. due to her income ineligibility.

Case 3. S.G.

S.G. has the same problem with her first child in the past and now she has a 3 year old daughter who does not go to Pre-K.

Case 4. M. G.

M.G is a single mom who had a job until recently and when she applied for child care subsidy she was put on a waiting list for a year. By the time she was able to get off the list she had stopped working because she could not take care of her child and keep her job. She was therefore told to first get a job and then reapply again. Her child is three years old and she is currently a stay-home mom to take care of her son.

Case 5. S. B.

S.B. recently became a single mom as her husband left her with two kids (3 years old one and 7 months old). In order to continue working S.B. brought her grandmother from her native country to take care of the two kids. As the grandmother does not speak English, all she can do is watch the kids. She can't read books for them she can't show them things that can help them develop their social and cognitive skills. She keeps the kids in an apartment the whole day and the only time she takes them out is between 5 to 6 pm.

This is creating a population of Pre-K age children who do not have the socialization and cognitive skills at the level of their age group. This in turn leads to an achievement gap at an early stage of the children's life which in turn affects the quality of skill of the labor force in the city. All of the mothers who shared their experience said that their children have problem socializing with their age group which suggests that Rockville city needs to do more to expand Pre-K services to those who cannot afford to send their children to private Pre-Ks but who do not qualify for the existing programs.

Appendix 2

Sustainability initiatives

Montgomery College got a grant from by the National Science Foundation under the auspices of its STEM Talent Expansion Program. It seeks to increase the number of qualified and culturally diverse community college students, who graduate and transfer to four-year institutions of higher education as STEM majors. Program activities for engaging students, particularly those from nontraditional backgrounds, include intensive recruitment efforts, pre-admission outreach and support, early undergraduate research experiences, enhanced tutoring services for students in STEM gateway courses, summer and academic year internships; professional development for faculty and staff including guidance counselors and advisors, student mentoring, and improved online STEM resources including use of social media and webinars and summer bridge programs for incoming high school seniors. Project partners include Montgomery County Public Schools, University of Maryland College Park and University of Maryland Baltimore County.

This award in conjunction with two other major recently awarded National Science Foundation grants — a \$300,000 Noyce Teacher Scholarship program award, for support of Montgomery College's project, Teaching Pathways Opening Doors to STEM, and a \$600,000 award for NSF Scholarships in Science, Technology, Engineering and Mathematics, On Ramp to STEM place Montgomery College prominently at the forefront of community colleges leading the way in enhancing the pipeline of those entering the STEM workforce.

The capacity building project, Teaching Pathways Opening Doors to STEM will integrate a variety of activities all centered on the goal of increasing the pool of highly qualified STEM teachers going into the classroom. Faculty from the Science, Engineering and Mathematics departments and from the School of Education at Montgomery College will work to leverage current partnerships with Montgomery County Public Schools(MCPS) as well as major transfer universities such as University of Maryland College Park, University of Maryland Baltimore County and Towson University to design multiple pathways into K-12 mathematics and science teaching careers for MCPS students, current Montgomery College students and the large population of skilled mathematics and science professionals in our community who may choose to enter the teaching field.

On-RAMP to STEM at Montgomery College, seeks to increase the number of underrepresented full-time students in biotechnology, biology, and mathematics who transfer to four-year institutions or enter the workforce in life-science industries with a solid understanding of the interdisciplinary nature of biology and mathematics. Building on a record of successfully fostering STEM students by creating a learning community and providing intrusive academic support, one-on-one mentoring, internships and research opportunities, this program will offer approximately 125 scholarships and support four cohorts of scholars. High school students with demonstrated academic potential will be recruited. Veterans will be recruited. Currently enrolled part-time students may be selected. An Advisory Board including faculty, administrators, students, government and industry representatives will advise the project management team.

Appendix 3

Details of Prekindergarten Support

In Montgomery County there are two programs that help children to be school ready by the time they enter Kindergarten. The Pre-K program is a state funded program with a maximum class size of 23 students per class. The Head start program is a federally funded program with a maximum class size of 20 students per class. Under both programs there were 2600 spaces available in Montgomery County for the 2011-2012 academic year. Both Pre-K and Head start programs are available to income eligible families with a minimum income as defined by the Federal and State Governments.

In Montgomery County the Prekindergarten/Head Start supervisor coordinates the implementation of grant requirements with the Policy Council (made up of parent delegates), Community Action Agency, Region III Office, and the Montgomery County Public Schools (MCPS). The Policy Council updates the budget annually and determines the amount of reimbursement. All parents are invited to attend the PC meetings and to participate. However, only elected representatives may vote.

Most Head Start class sessions are 3 hours and 15 minutes long whereas Prekindergarten class sessions are 2 hours and 30 minutes long. For families that qualify, there are a limited number of spaces available in a community-based full-day, full-year program at Montgomery College in Rockville. There are also Judy Centers in four locations in Montgomery County for early childhood education and support services for children whose families who reside in specific Title I school districts. Judy Center services and programs for young children and their families are typically available 10–12 hours a day, year round. Judy Centers are unique because they promote school readiness through collaboration with community-based agencies, organizations, and businesses.

The Child Care Subsidy Programs provide eligible Montgomery County families with help paying for their child care so that they can obtain and maintain employment and/or attend school or training programs. Case managers determine eligibility, provide program information and counseling with regards to choosing quality child care and the pursuit of child support and provide information about other resources as necessary.

There are two child care subsidy programs, Purchase of Care (POC) and Working Parents Assistance (WPA), available to residents of Montgomery County to assist parents with the cost of child care tuition.